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* * * * * STN Columbus * * * * *

=> file req

SINCE FILE

ENTRY

FULL ESTIMATED COST

0.21

0.21

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STRUCTURE FILE UPDATES: 30 NOV 2006 HIGHEST RN 914452-16-7

DICTIONARY FILE UPDATES: 30 NOV 2006 HIGHEST RN 914452-16-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

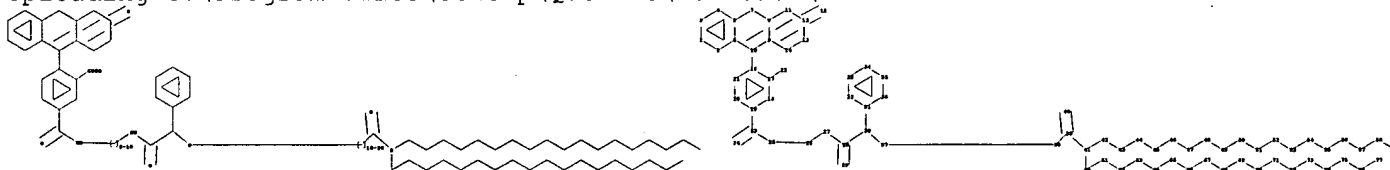
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

 \Rightarrow

Uploading C:\Program Files\Stnexp\Queries\10618956\1.str



```
chain nodes :
```

[illegible]

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 16 17 18 19 20 21 31 32 33 34 35
36

chain bonds :

10/618,956 12/1/2006

10/618,956 12/1/2006

10-16 12-15 17-22 19-23 23-24 23-25 25-26 26-27 27-28 28-29 28-30 30-31 30-37
37-38 38-39 39-40 39-41 41-42 41-60 42-43 43-44 44-45 45-46 46-47 47-48
48-49 49-50 50-51 51-52 52-53 53-54 54-55 55-56 56-57 57-58 58-59 60-61 61-62
62-63 63-64 64-65 65-66 66-67 67-68 68-69 69-70 70-71 71-72 72-73 73-74
74-75 75-76 76-77

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13 13-14
16-17 16-21 17-18 18-19 19-20 20-21 31-32 31-36 32-33 33-34 34-35 35-36

exact/norm bonds :

5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-15 12-13 13-14 23-24 23-25 25-26
26-27 27-28 28-29 30-37 37-38 39-40 39-41 41-42 41-60

exact bonds :

10-16 17-22 19-23 28-30 30-31 38-39 42-43 43-44 44-45 45-46 46-47 47-48 48-49
49-50 50-51 51-52 52-53 53-54 54-55 55-56 56-57 57-58 58-59 60-61 61-62
62-63 63-64 64-65 65-66 66-67 67-68 68-69 69-70 70-71 71-72 72-73 73-74 74-75
75-76 76-77

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 16-17 16-21 17-18 18-19 19-20 20-21 31-32 31-36
32-33 33-34 34-35 35-36

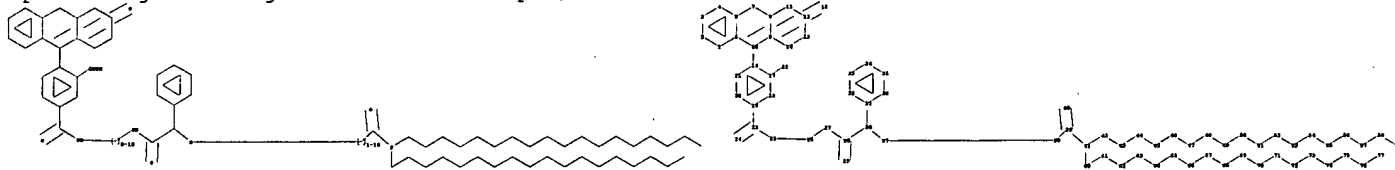
Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:CLASS 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom
22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS
31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:CLASS 38:CLASS 39:CLASS
40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS 47:CLASS 48:CLASS
49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:CLASS 54:CLASS 55:CLASS 56:CLASS 57:CLASS
58:CLASS 59:CLASS 60:CLASS 61:CLASS 62:CLASS 63:CLASS 64:CLASS 65:CLASS 66:CLASS
67:CLASS 68:CLASS 69:CLASS 70:CLASS 71:CLASS 72:CLASS 73:CLASS 74:CLASS 75:CLASS
76:CLASS 77:CLASS

L1 STRUCTURE UPLOADED

=>

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chain nodes :

15 22 23 24 25 26 27 28 29 30 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70
71 72 73 74 75 76 77

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 16 17 18 19 20 21 31 32 33 34 35
36

chain bonds :

10-16 12-15 17-22 19-23 23-24 23-25 25-26 26-27 27-28 28-29 28-30 30-31 30-37
37-38 38-39 39-40 39-41 41-42 41-60 42-43 43-44 44-45 45-46 46-47 47-48
48-49 49-50 50-51 51-52 52-53 53-54 54-55 55-56 56-57 57-58 58-59 60-61 61-62
62-63 63-64 64-65 65-66 66-67 67-68 68-69 69-70 70-71 71-72 72-73 73-74

10/618,956 12/1/2006

10/618,956 12/1/2006

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13 13-14
16-17 16-21 17-18 18-19 19-20 20-21 31-32 31-36 32-33 33-34 34-35 35-36

exact/norm bonds :

5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-15 12-13 13-14 23-24 23-25 25-26
26-27 27-28 28-29 30-37 37-38 39-40 39-41 41-42 41-60

exact bonds :

10-16 17-22 19-23 28-30 30-31 38-39 42-43 43-44 44-45 45-46 46-47 47-48 48-49
49-50 50-51 51-52 52-53 53-54 54-55 55-56 56-57 57-58 58-59 60-61 61-62
62-63 63-64 64-65 65-66 66-67 67-68 68-69 69-70 70-71 71-72 72-73 73-74 74-75
75-76 76-77

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 16-17 16-21 17-18 18-19 19-20 20-21 31-32 31-36
32-33 33-34 34-35 35-36

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:CLASS 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom
22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS
31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:CLASS 38:CLASS 39:CLASS
40:CLASS 41:CLASS 42:CLASS 43:CLASS 44:CLASS 45:CLASS 46:CLASS 47:CLASS 48:CLASS
49:CLASS 50:CLASS 51:CLASS 52:CLASS 53:CLASS 54:CLASS 55:CLASS 56:CLASS 57:CLASS
58:CLASS 59:CLASS 60:CLASS 61:CLASS 62:CLASS 63:CLASS 64:CLASS 65:CLASS 66:CLASS
67:CLASS 68:CLASS 69:CLASS 70:CLASS 71:CLASS 72:CLASS 73:CLASS 74:CLASS 75:CLASS
76:CLASS 77:CLASS

L2 STRUCTURE UPLOADED

=> d

L2 HAS NO ANSWERS

L2 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 12 full

FULL SEARCH INITIATED 10:41:15 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS

0 ANSWERS

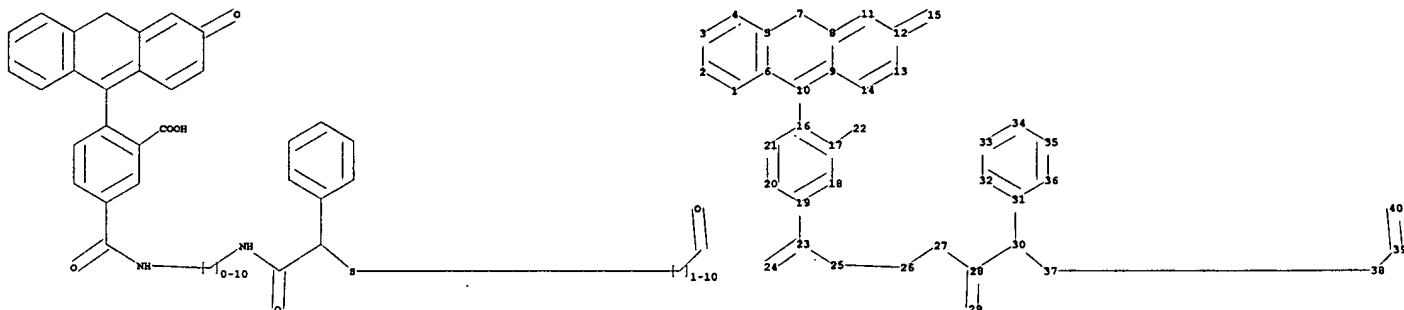
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L2

=>

Uploading C:\Program Files\Stnexp\Queries\10618956\3.str

10/618,956 12/1/2006



chain nodes :

15 22 23 24 25 26 27 28 29 30 37 38 39 40

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 16 17 18 19 20 21 31 32 33 34 35
36

chain bonds :

10-16 12-15 17-22 19-23 23-24 23-25 25-26 26-27 27-28 28-29 28-30 30-31 30-37
37-38 38-39 39-40

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-13 13-14
16-17 16-21 17-18 18-19 19-20 20-21 31-32 31-36 32-33 33-34 34-35 35-36

exact/norm bonds :

5-7 6-10 7-8 8-9 8-11 9-10 9-14 11-12 12-15 12-13 13-14 23-24 23-25 25-26
26-27 27-28 28-29 30-37 37-38 39-40

exact bonds :

10-16 17-22 19-23 28-30 30-31 38-39

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 16-17 16-21 17-18 18-19 19-20 20-21 31-32 31-36
32-33 33-34 34-35 35-36

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:CLASS 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom
22:CLASS 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS
31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:CLASS 38:CLASS 39:CLASS
40:CLASS

L4 STRUCTURE UPLOADED

=> s 14 full

FULL SEARCH INITIATED 10:42:38 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED

0 ITERATIONS

0 ANSWERS

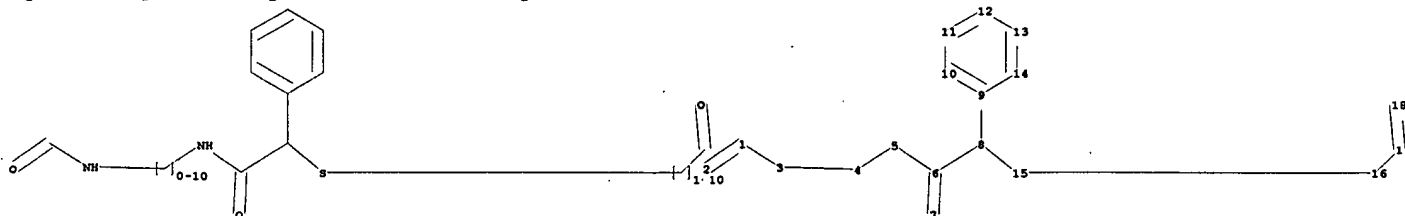
SEARCH TIME: 00.00.01

10/618,956 12/1/2006

L5 0 SEA SSS FUL L4

=>

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chain nodes :

1 2 3 4 5 6 7 8 15 16 17 18

ring nodes :

9 10 11 12 13 14

chain bonds :

1-3 1-2 3-4 4-5 5-6 6-7 6-8 8-9 8-15 15-16 16-17 17-18

ring bonds :

9-10 9-14 10-11 11-12 12-13 13-14

exact/norm bonds :

1-3 1-2 3-4 4-5 5-6 6-7 8-15 15-16 17-18

exact bonds :

6-8 8-9 16-17

normalized bonds :

9-10 9-14 10-11 11-12 12-13 13-14

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:Atom 10:Atom

11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS

L6 STRUCTURE UPLOADED

=> s 16

SAMPLE SEARCH INITIATED 10:43:36 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 27 TO ITERATE

100.0% PROCESSED 27 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 229 TO 851

PROJECTED ANSWERS: 0 TO 0

L7 0 SEA SSS SAM L6

=> s 16 full

FULL SEARCH INITIATED 10:43:44 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 688 TO ITERATE

10/618,956 12/1/2006

10/618,956 12/1/2006

100.0% PROCESSED 688 ITERATIONS
SEARCH TIME: 00.00.01

12 ANSWERS

L8 12 SEA SSS FUL L6

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

502.58

502.79

FILE 'CAPLUS' ENTERED AT 10:43:48 ON 01 DEC 2006

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FILE COVERS 1907 - 1 Dec 2006 VOL 145 ISS 24

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=> s l8

L9 14 L8

=> d ibib hitstr 1-14

10/618,956 12/1/2006

10/618,956 12/1/2006

=> file req

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

50.52

553.31

FILE 'REGISTRY' ENTERED AT 10:45:46 ON 01 DEC 2006

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STRUCTURE FILE UPDATES: 30 NOV 2006 HIGHEST RN 914452-16-7

DICTIONARY FILE UPDATES: 30 NOV 2006 HIGHEST RN 914452-16-7

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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

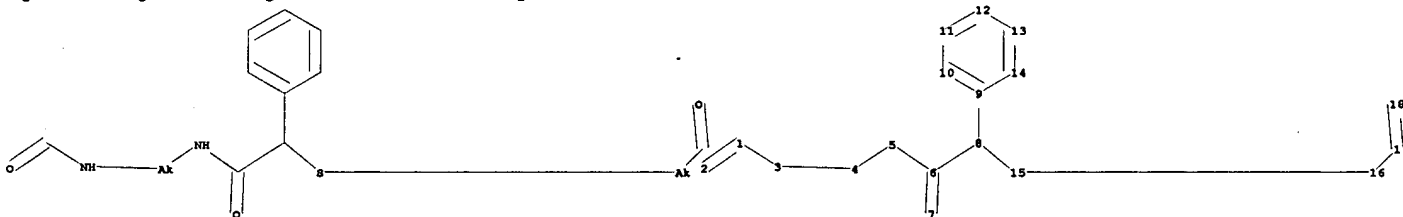
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```
chain nodes :
```

1 2 3 4 5 6 7 8 15 16 17 18

ring nodes :

9 10 11 12 13 14

chain bonds :

1-3 1-2 3-4 4-5 5-6 6-7 6-8 8-9 8-15 15-16 16-17 17-18

ring bonds :

9-10 9-14 10-11 11-12 12-13 13-14

exact/norm bonds :

1-3 1-2 3-4 4-5 5-6 6-7 8-15 15-16 16-17 17-18

exact bonds :

6-8 8-9

normalized bonds :

9-10 9-14 10-11 11-12 12-13 13-14

10/618,956 12/1/2006

10/618,956 12/1/2006

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS

L10 STRUCTURE UPLOADED

=> s l10

SAMPLE SEARCH INITIATED 10:46:01 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 841 TO ITERATE

100.0% PROCESSED 841 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 15081 TO 18559
PROJECTED ANSWERS: 0 TO 0

L11 0 SEA SSS SAM L10

=> s l10 full

FULL SEARCH INITIATED 10:46:05 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 18007 TO ITERATE

100.0% PROCESSED 18007 ITERATIONS 12 ANSWERS
SEARCH TIME: 00.00.03

L12 12 SEA SSS FUL L10

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	166.94	720.25

FILE 'CAPLUS' ENTERED AT 10:46:11 ON 01 DEC 2006
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10/618,956 12/1/2006

10/618,956 12/1/2006

=> s 112

L13 14 L12

=> d ibib hitstr 1-14

10/618,956 12/1/2006